

	10	20	30	40	50
-	M S H R K Y E A P R H G H L G F L P R K R A A S I R A R V K A F F K D D R S K P V A L T S F L G Y K				
-	M S H R K Y E A P R H G H L G F L P R K R A A S I R A R V K A F F K D D R S K P V A L T S F L G Y K				
-	60	70	80	90	100
-	A G M T T I V R D L D R P G S K F H K R E V V E A V T V V D T P P V V V V G V G Y V E T P R G L R				
-	A G M T T I V R D L D R P G S K F H K R E V V E A V T V V D T P P V V V V G V G Y V E T P R G L R				
-	110	120	130	140	150
-	S L T T V W A E H L S D E V K R R F Y K N W Y K S K K A F T K Y S A K Y A Q D G A G I E R E L A R				
-	S L T T V W A E H L S D E V K R R F Y K N W Y K S K K A F T K Y S A K Y A Q D G A G I E R E L A R				
-	160	170	180	190	200
-	I K K Y A S V V R V L V H T Q I R K T P L A Q K K A H L A E I Q L N G G S I S E K V D W A R E H F E				
-	I K K Y A S V V R V L V H T Q I R K T P L A Q K K A H L A E I Q L N G G S I S E K V D W A R E H F E				
-	210	220	230	240	250
-	K T V A V D S V F E Q N E M I D A I A V T K G H G F E G V T H R W G T K K L P R K T H R G L R K V A				
-	K T V A V D S V F E Q N E M I D A I A V T K G H G F E G V T H R W G T K K L P R K T H R G L R K V A				
-	260	270	280	290	300
-	C I G A W H P A H V M W S V A R A G O R G Y H S R T S I N H K I Y R V G K G D D E A N G A T S F D R				
-	C I G A [C] H P A H V M W S V A R A G O R G Y H S R T S I N H K I Y R V G K G D D E A N G A T S F D R				
-	310	320	330	340	350
-	T K K T I T P H G G F V H Y G E I K N D F I M V K G C I P G N R K R I V T L R K S L Y T N T S R K A				
-	T K K T I T P H G G F V H Y G E I K N D F I M V K G C I P G N R K R I V T L R K S L Y T N T S R K A				

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RL3 YEAST

PRL3 RICE

RPL3_YEAST

APPROVED	J. C. [illegible]	
BY	CLASIS	SUGGLASIS
CRAFTSMAN		

1. *Chlorophyll a* (Chl *a*)
 2. *Chlorophyll b* (Chl *b*)
 3. *Chlorophyll c* (Chl *c*)
 4. *Chlorophyll d* (Chl *d*)
 5. *Chlorophyll e* (Chl *e*)
 6. *Chlorophyll f* (Chl *f*)
 7. *Chlorophyll g* (Chl *g*)
 8. *Chlorophyll h* (Chl *h*)
 9. *Chlorophyll i* (Chl *i*)
 10. *Chlorophyll j* (Chl *j*)
 11. *Chlorophyll k* (Chl *k*)
 12. *Chlorophyll l* (Chl *l*)
 13. *Chlorophyll m* (Chl *m*)
 14. *Chlorophyll n* (Chl *n*)
 15. *Chlorophyll o* (Chl *o*)
 16. *Chlorophyll p* (Chl *p*)
 17. *Chlorophyll q* (Chl *q*)
 18. *Chlorophyll r* (Chl *r*)
 19. *Chlorophyll s* (Chl *s*)
 20. *Chlorophyll t* (Chl *t*)
 21. *Chlorophyll u* (Chl *u*)
 22. *Chlorophyll v* (Chl *v*)
 23. *Chlorophyll w* (Chl *w*)
 24. *Chlorophyll x* (Chl *x*)
 25. *Chlorophyll y* (Chl *y*)
 26. *Chlorophyll z* (Chl *z*)
 27. *Chlorophyll aa* (Chl *aa*)
 28. *Chlorophyll ab* (Chl *ab*)
 29. *Chlorophyll ac* (Chl *ac*)
 30. *Chlorophyll ad* (Chl *ad*)
 31. *Chlorophyll ae* (Chl *ae*)
 32. *Chlorophyll af* (Chl *af*)
 33. *Chlorophyll ag* (Chl *ag*)
 34. *Chlorophyll ah* (Chl *ah*)
 35. *Chlorophyll ai* (Chl *ai*)
 36. *Chlorophyll aj* (Chl *aj*)
 37. *Chlorophyll ak* (Chl *ak*)
 38. *Chlorophyll al* (Chl *al*)
 39. *Chlorophyll am* (Chl *am*)
 40. *Chlorophyll an* (Chl *an*)
 41. *Chlorophyll ao* (Chl *ao*)
 42. *Chlorophyll ap* (Chl *ap*)
 43. *Chlorophyll aq* (Chl *aq*)
 44. *Chlorophyll ar* (Chl *ar*)
 45. *Chlorophyll as* (Chl *as*)
 46. *Chlorophyll at* (Chl *at*)
 47. *Chlorophyll au* (Chl *au*)
 48. *Chlorophyll av* (Chl *av*)
 49. *Chlorophyll aw* (Chl *aw*)
 50. *Chlorophyll ax* (Chl *ax*)
 51. *Chlorophyll ay* (Chl *ay*)
 52. *Chlorophyll az* (Chl *az*)
 53. *Chlorophyll ba* (Chl *ba*)
 54. *Chlorophyll bb* (Chl *bb*)
 55. *Chlorophyll bc* (Chl *bc*)
 56. *Chlorophyll bd* (Chl *bd*)
 57. *Chlorophyll be* (Chl *be*)
 58. *Chlorophyll bf* (Chl *bf*)
 59. *Chlorophyll bg* (Chl *bg*)
 60. *Chlorophyll bh* (Chl *bh*)
 61. *Chlorophyll bi* (Chl *bi*)
 62. *Chlorophyll bj* (Chl *bj*)
 63. *Chlorophyll bk* (Chl *bk*)
 64. *Chlorophyll bl* (Chl *bl*)
 65. *Chlorophyll bm* (Chl *bm*)
 66. *Chlorophyll bn* (Chl *bn*)
 67. *Chlorophyll bo* (Chl *bo*)
 68. *Chlorophyll bp* (Chl *bp*)
 69. *Chlorophyll bq* (Chl *bq*)
 70. *Chlorophyll br* (Chl *br*)
 71. *Chlorophyll bs* (Chl *bs*)
 72. *Chlorophyll bt* (Chl *bt*)
 73. *Chlorophyll bu* (Chl *bu*)
 74. *Chlorophyll bv* (Chl *bv*)
 75. *Chlorophyll bw* (Chl *bw*)
 76. *Chlorophyll bx* (Chl *bx*)
 77. *Chlorophyll by* (Chl *by*)
 78. *Chlorophyll bz* (Chl *bz*)
 79. *Chlorophyll ca* (Chl *ca*)
 80. *Chlorophyll cb* (Chl *cb*)
 81. *Chlorophyll cc* (Chl *cc*)
 82. *Chlorophyll cd* (Chl *cd*)
 83. *Chlorophyll ce* (Chl *ce*)
 84. *Chlorophyll cf* (Chl *cf*)
 85. *Chlorophyll cg* (Chl *cg*)
 86. *Chlorophyll ch* (Chl *ch*)
 87. *Chlorophyll ci* (Chl *ci*)
 88. *Chlorophyll cj* (Chl *cj*)
 89. *Chlorophyll ck* (Chl *ck*)
 90. *Chlorophyll cl* (Chl *cl*)
 91. *Chlorophyll cm* (Chl *cm*)
 92. *Chlorophyll cn* (Chl *cn*)
 93. *Chlorophyll co* (Chl *co*)
 94. *Chlorophyll cp* (Chl *cp*)
 95. *Chlorophyll cq* (Chl *cq*)
 96. *Chlorophyll cr* (Chl *cr*)
 97. *Chlorophyll cs* (Chl *cs*)
 98. *Chlorophyll ct* (Chl *ct*)
 99. *Chlorophyll cu* (Chl *cu*)
 100. *Chlorophyll cv* (Chl *cv*)
 101. *Chlorophyll cw* (Chl *cw*)
 102. *Chlorophyll cx* (Chl *cx*)
 103. *Chlorophyll cy* (Chl *cy*)
 104. *Chlorophyll cz* (Chl *cz*)
 105. *Chlorophyll da* (Chl *da*)
 106. *Chlorophyll db* (Chl *db*)
 107. *Chlorophyll dc* (Chl *dc*)
 108. *Chlorophyll dd* (Chl *dd*)
 109. *Chlorophyll de* (Chl *de*)
 110. *Chlorophyll df* (Chl *df*)
 111. *Chlorophyll dg* (Chl *dg*)
 112. *Chlorophyll dh* (Chl *dh*)
 113. *Chlorophyll di* (Chl *di*)
 114. *Chlorophyll dj* (Chl *dj*)
 115. *Chlorophyll dk* (Chl *dk*)
 116. *Chlorophyll dl* (Chl *dl*)
 117. *Chlorophyll dm* (Chl *dm*)
 118. *Chlorophyll dn* (Chl *dn*)
 119. *Chlorophyll do* (Chl *do*)
 120. *Chlorophyll dp* (Chl *dp*)
 121. *Chlorophyll dq* (Chl *dq*)
 122. *Chlorophyll dr* (Chl *dr*)
 123. *Chlorophyll ds* (Chl *ds*)
 124. *Chlorophyll dt* (Chl *dt*)
 125. *Chlorophyll du* (Chl *du*)
 126. *Chlorophyll dv* (Chl *dv*)
 127. *Chlorophyll dw* (Chl *dw*)
 128. *Chlorophyll dx* (Chl *dx*)
 129. *Chlorophyll dy* (Chl *dy*)
 130. *Chlorophyll dz* (Chl *dz*)
 131. *Chlorophyll ea* (Chl *ea*)
 132. *Chlorophyll eb* (Chl *eb*)
 133. *Chlorophyll ec* (Chl *ec*)
 134. *Chlorophyll ed* (Chl *ed*)
 135. *Chlorophyll ee* (Chl *ee*)
 136. *Chlorophyll ef* (Chl *ef*)
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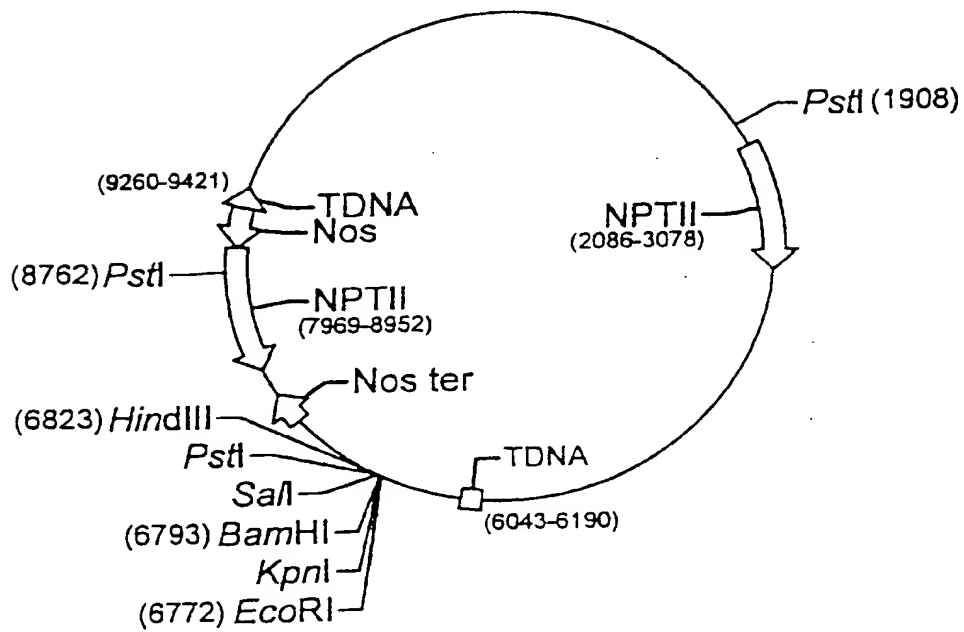
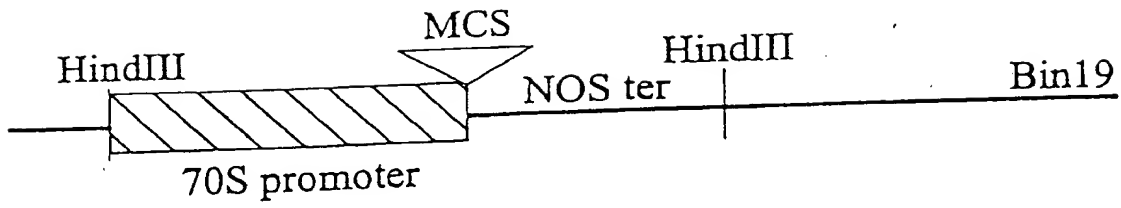
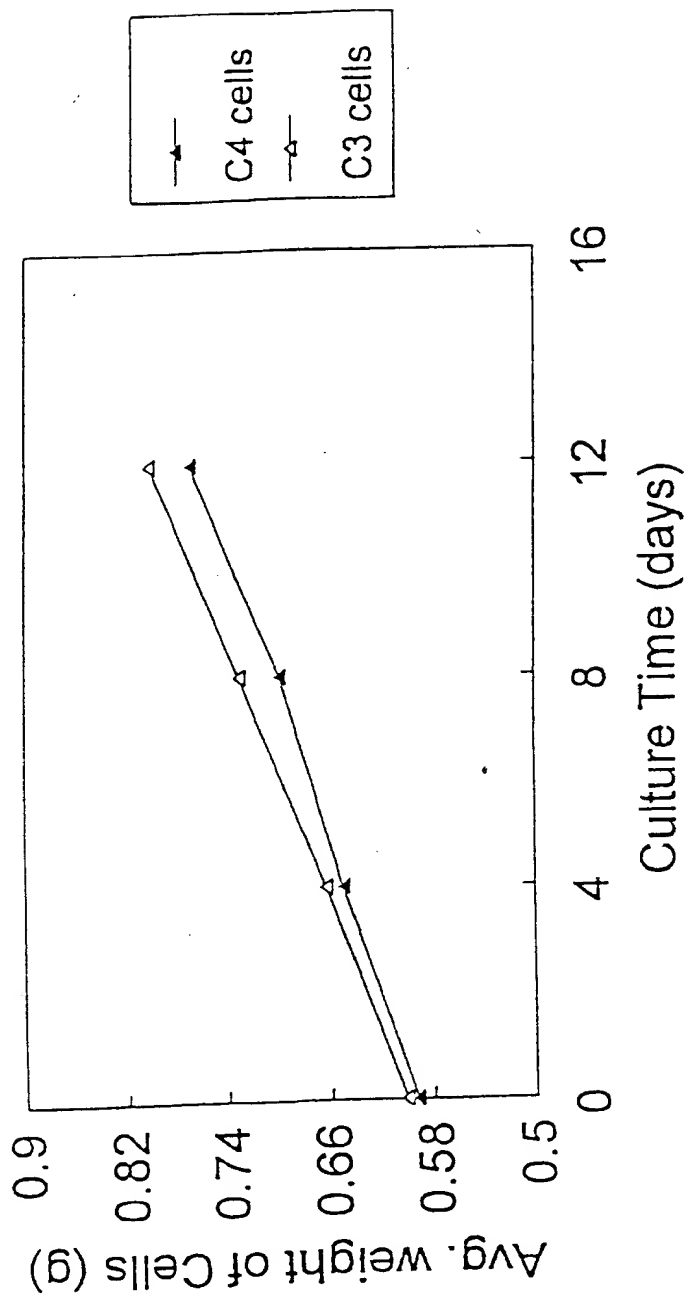


FIGURE 4

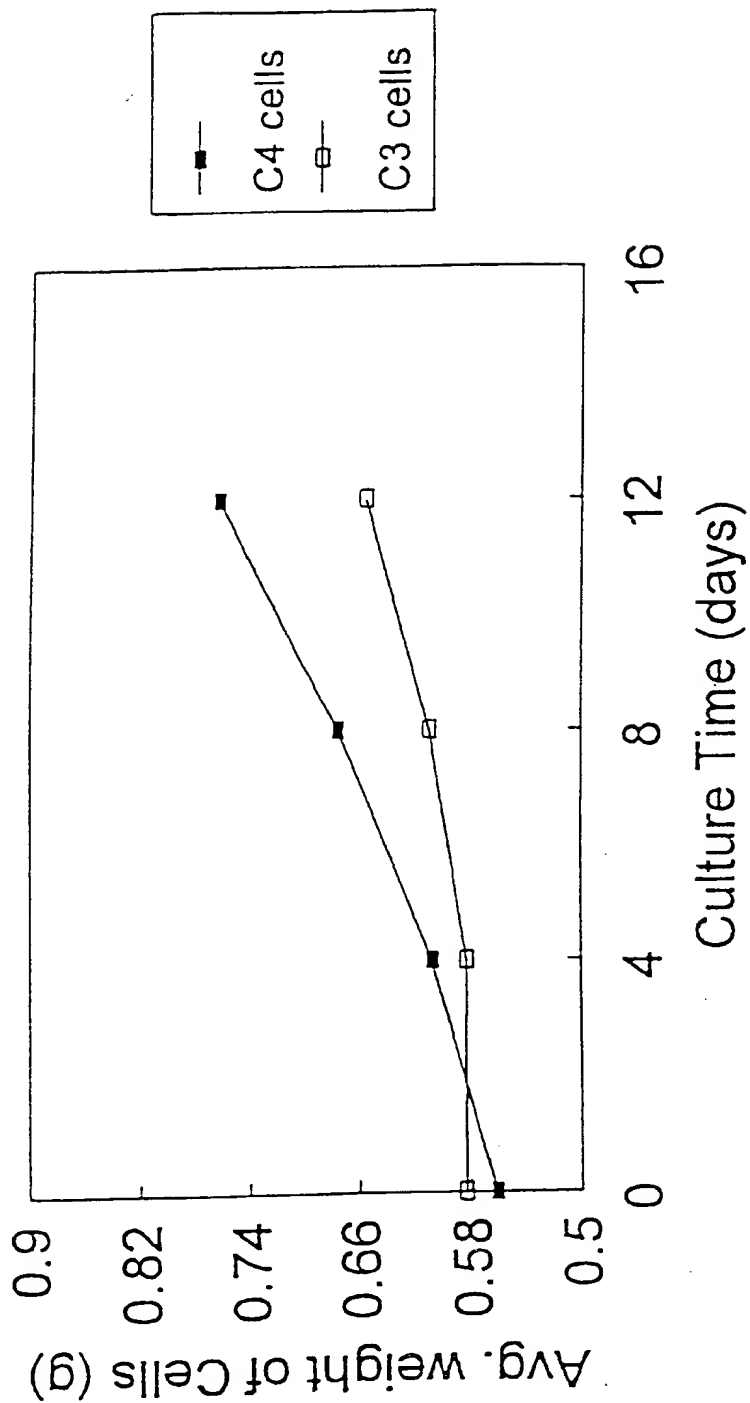
APPROVED	CLASS	SUBCLASS
BY	CLASS	
DATE		



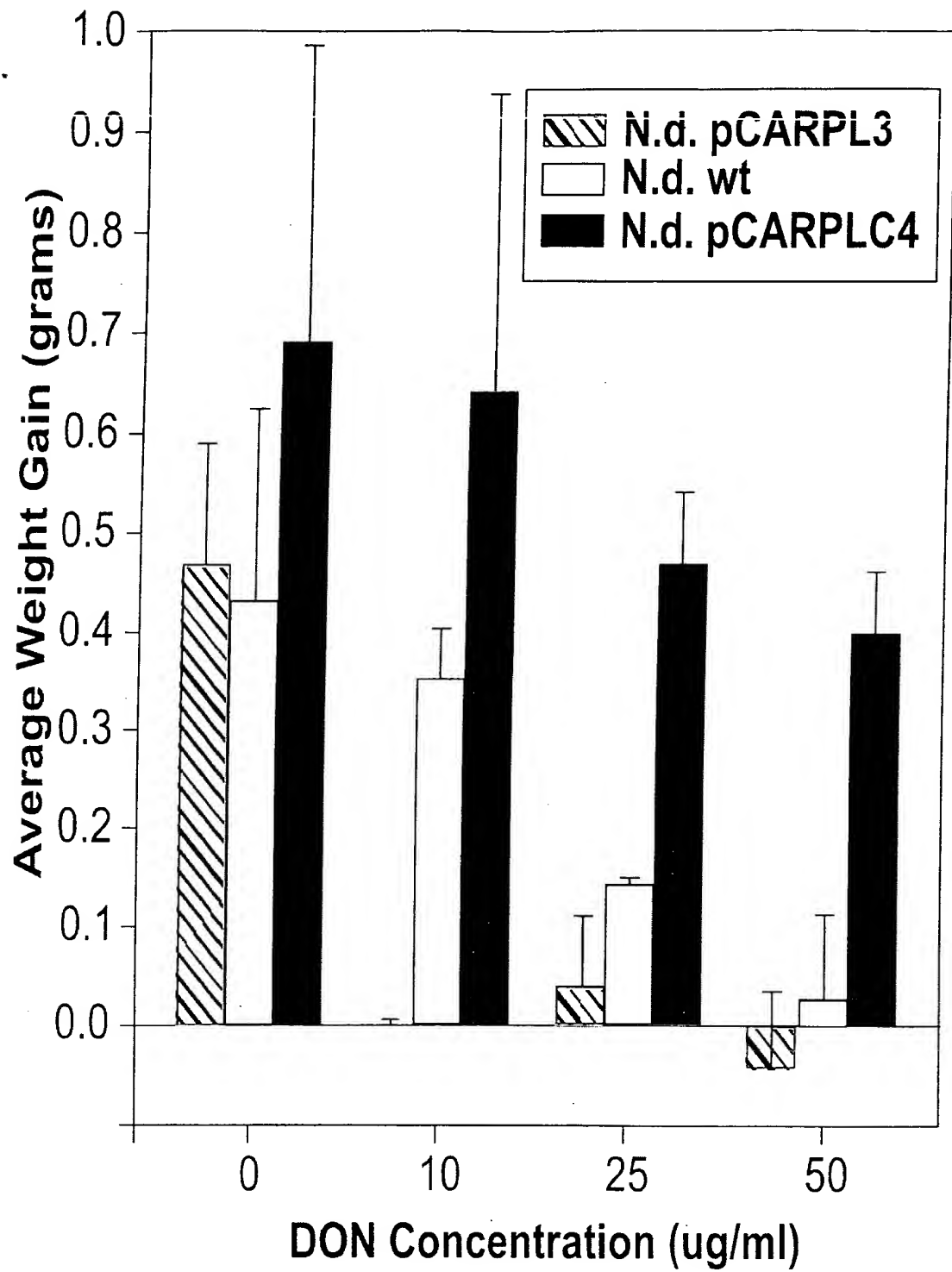
Growth Rate of Transgenic Tobacco Cells in the Absence of DON



Growth Rate of Transgenic Tobacco Cells in the Presence of 25 ppm DON



APPROVED	DATE	SUBCLASS
BY	CLASS	
INSTRUCTOR		



maize1.SEQ
maize2.SEQ
sorghum1.seq
sorghum2.seq
wheat.seq
barley.seq
oat.seq
rice.SEQ

[illegible]

TCCTTCCCAAGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
180
TCATTTCCTTAGGGATGACCCCAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
170
TCATTTCCTTAGGGATGACCCCAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
160
TCCTTCCGAGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
150
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
140
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
130
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
120
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
110
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
100

-----TGGACGA-----
9
TCCTTTCCTTAGGGATGACCCAAAGAAGCCTTGCCAATCTCACTGCCTTCTTGGCTACAAGCGTGGCATGACTCACATTGTGCCGTGAGGTT
180

maize1.SEQ
maize2.SEQ
sorghum1.seq
sorghum2.seq
wheat.seq
barley.seq
oat.seq
rice.SEQ

FIGURE 7B

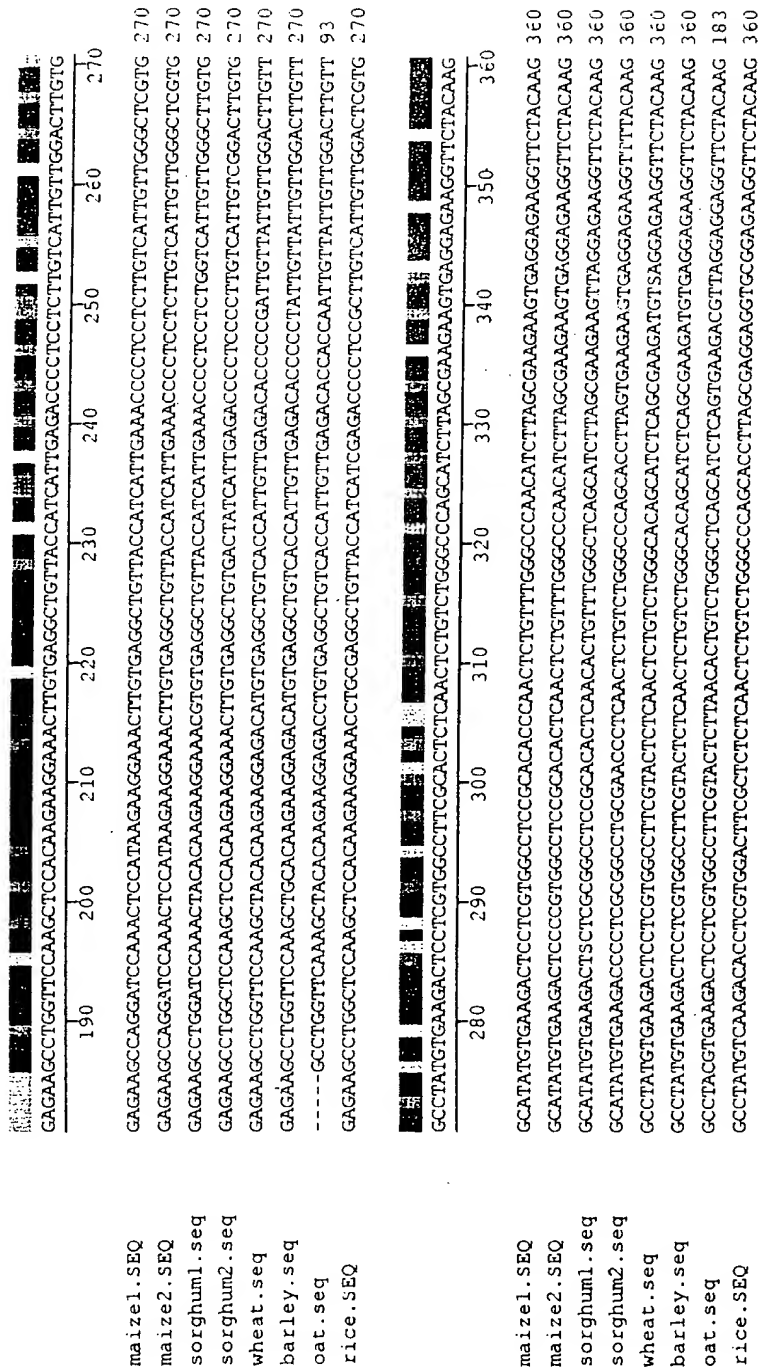


FIGURE 7C



FIGURE 7D

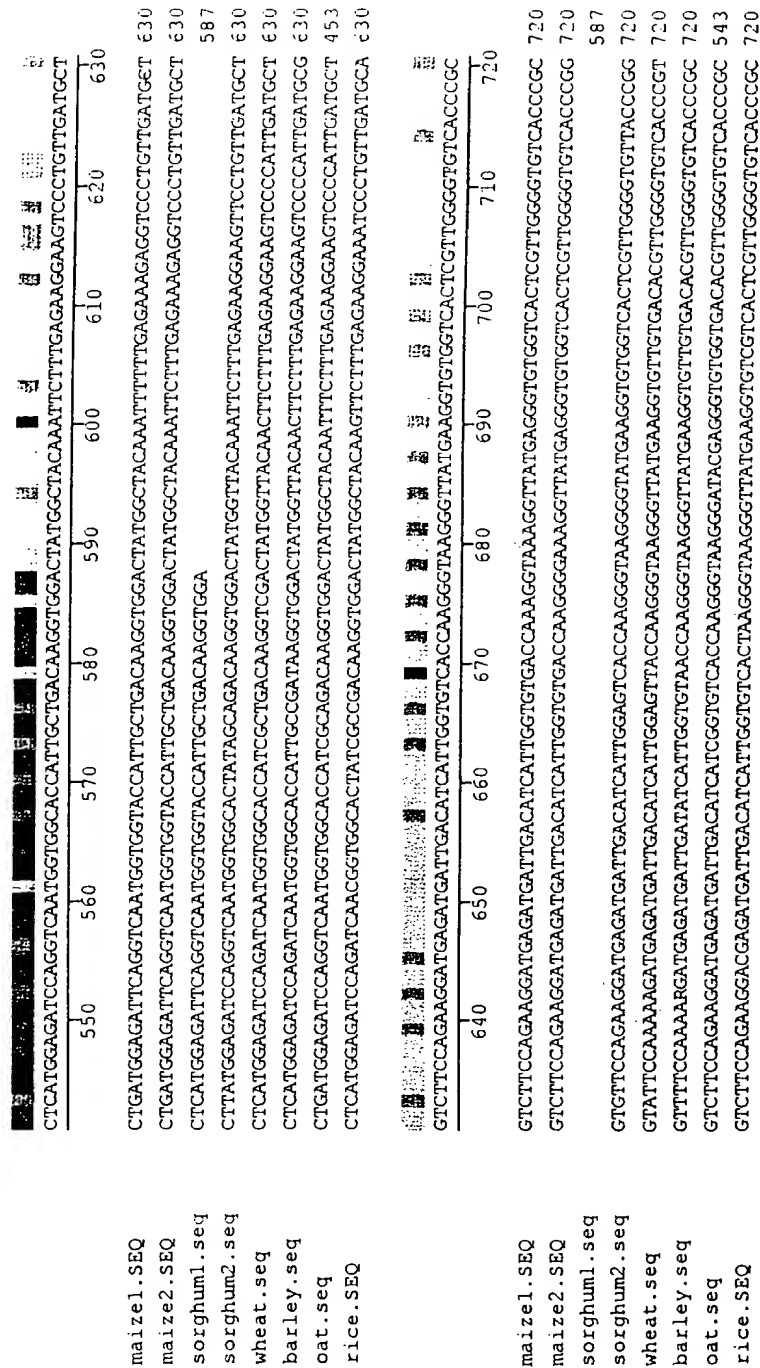


FIGURE 7E

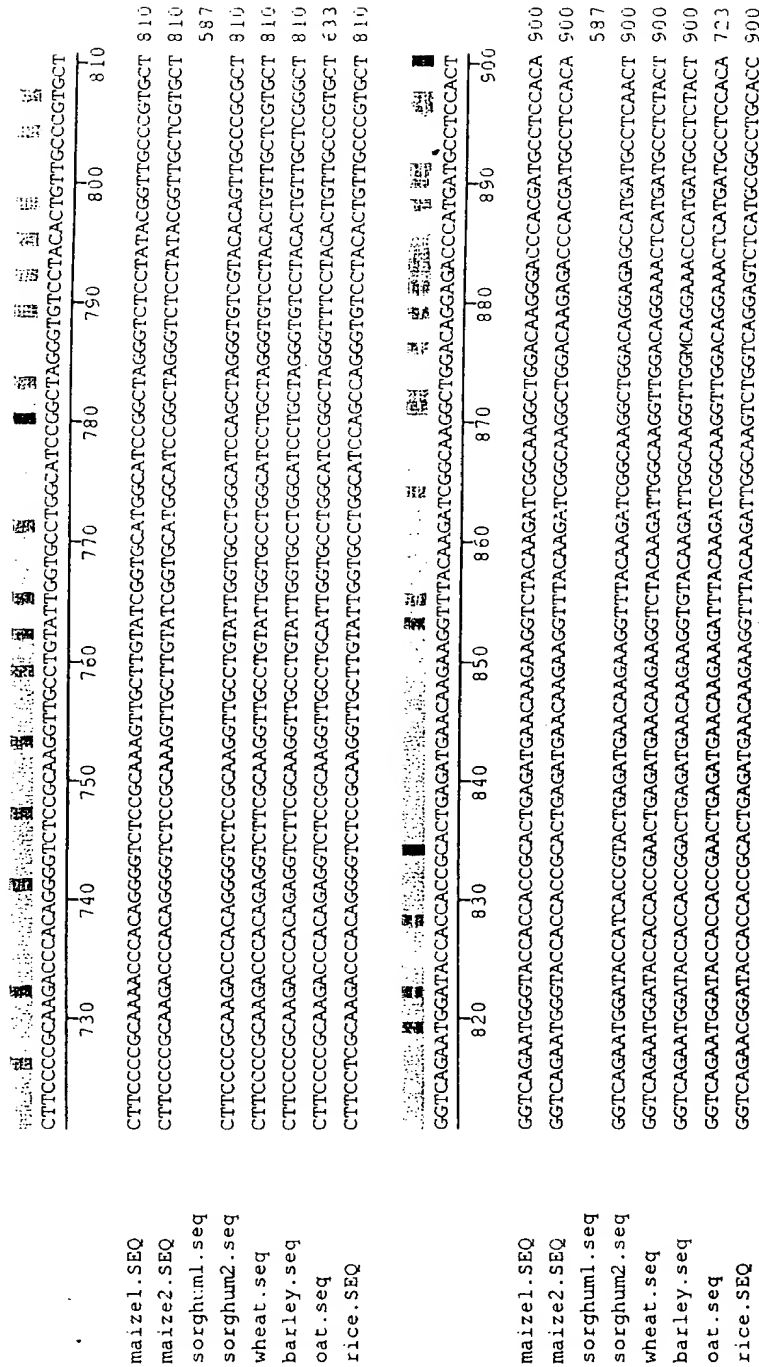


FIGURE 7F

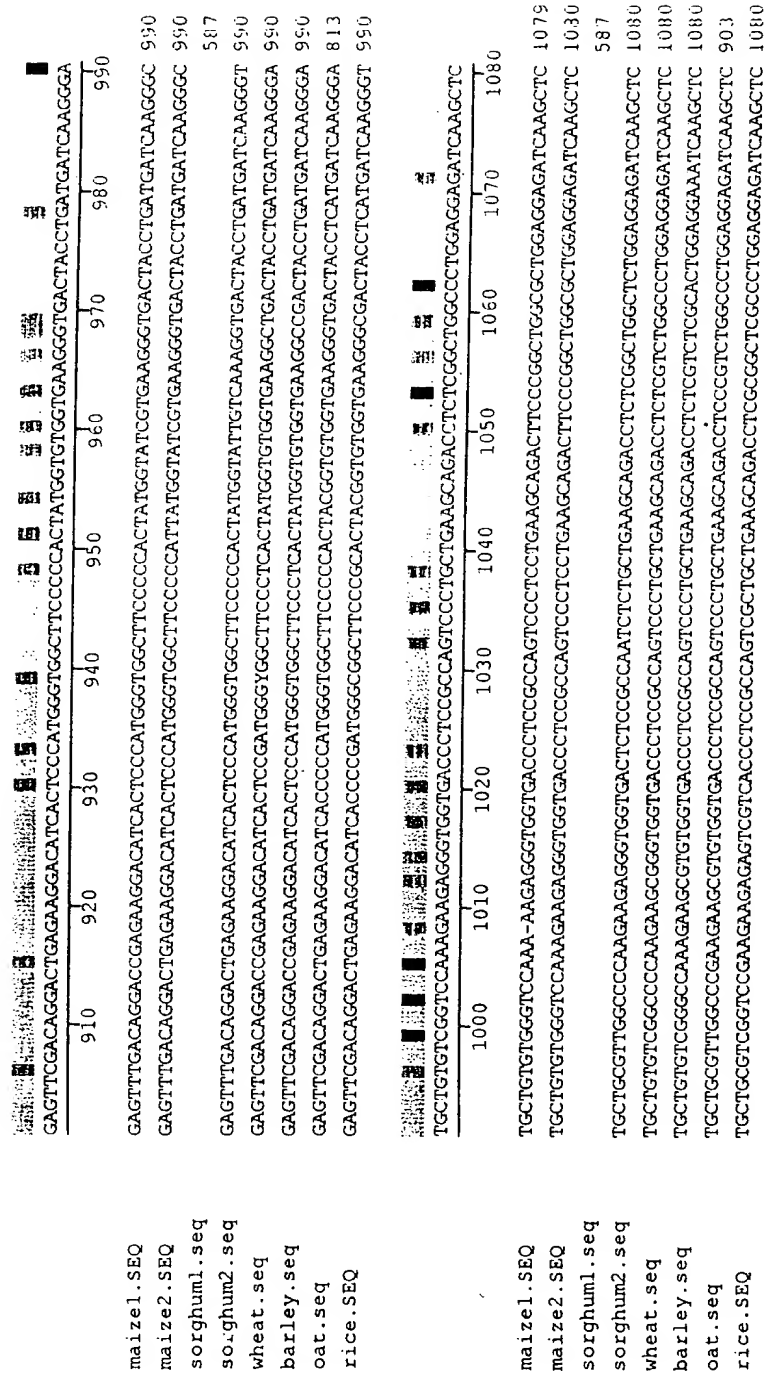


FIGURE 7G

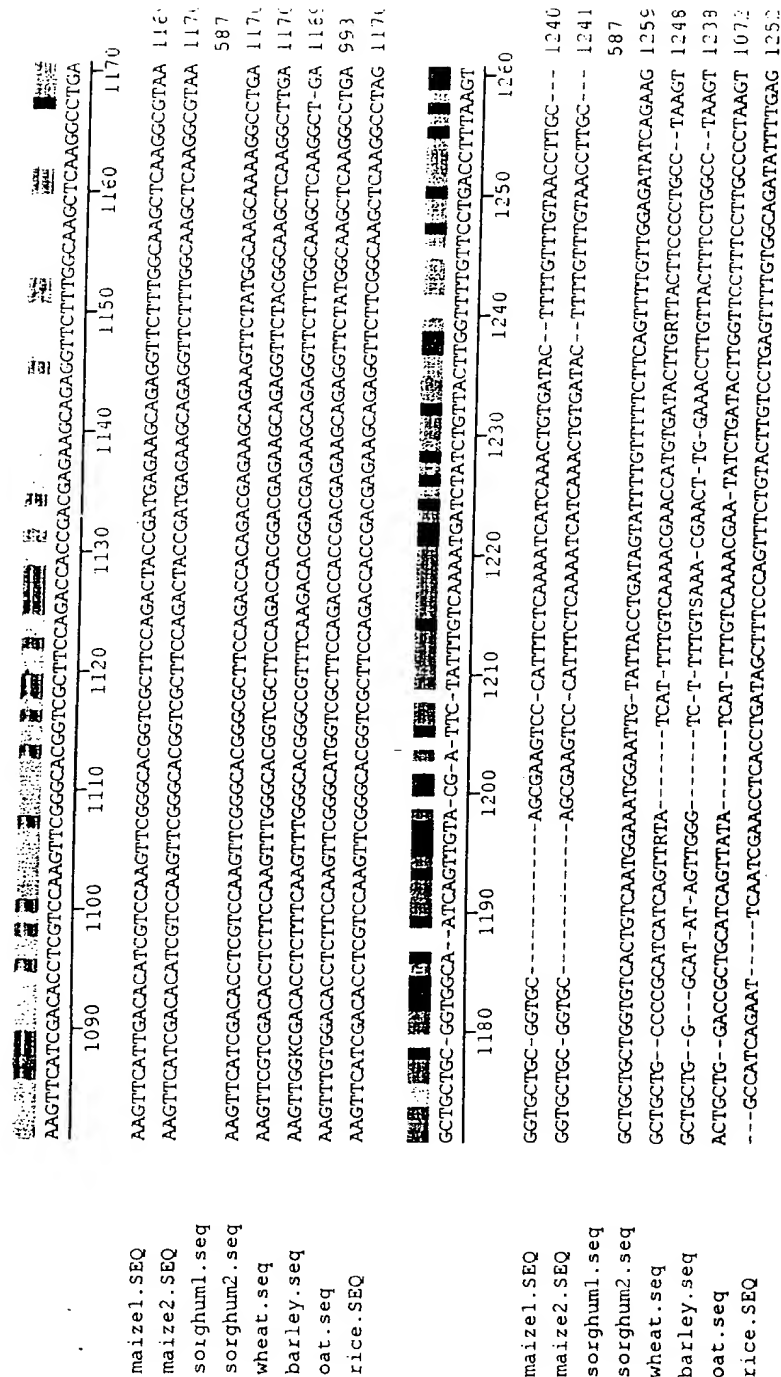
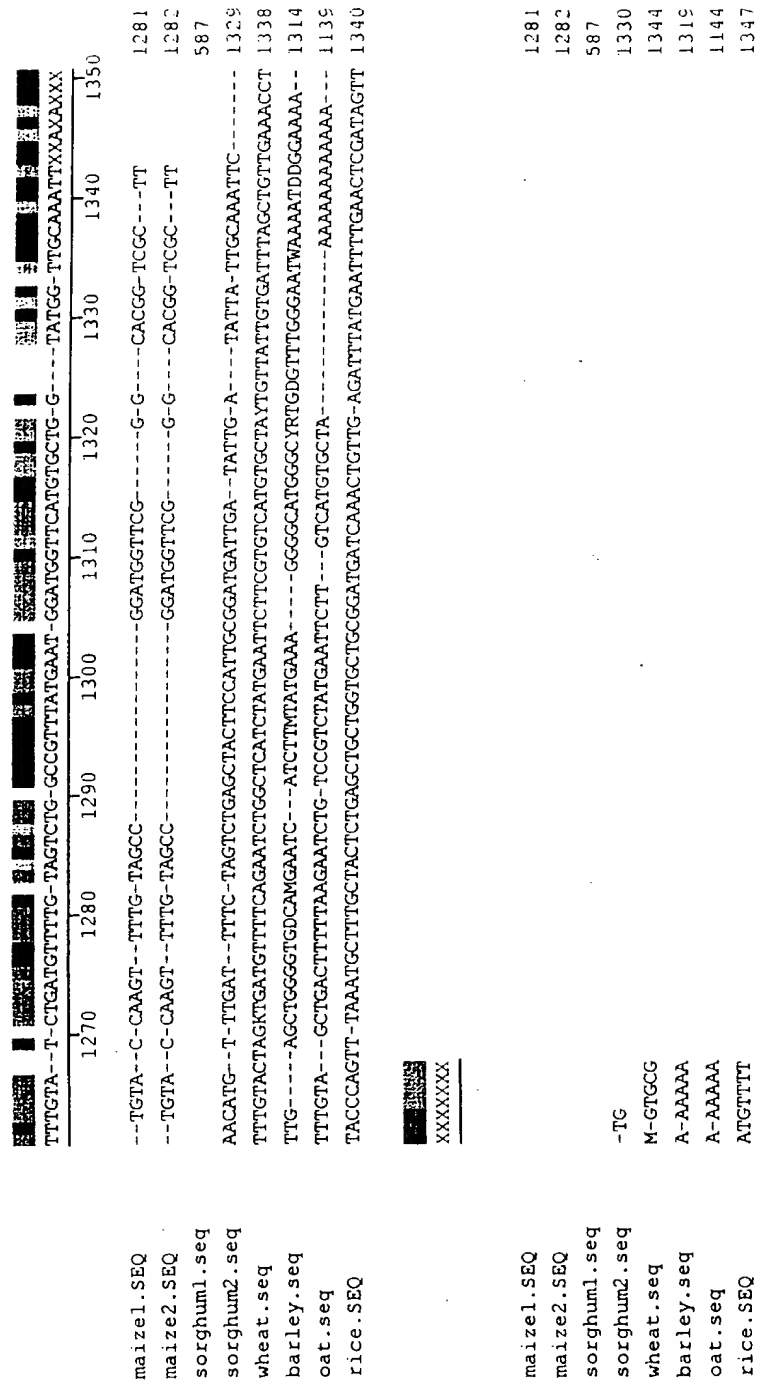


FIGURE 7H



[illegible]

		***			*	*	
maize	GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT						95
sorghum	GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT						
wheat	GYKAGMTHIVREVEKPGSKLHKKETCEAVTIVETPPLVIVGLVAYVKT						
barley	GYKAGMTHIVREVEKPGSKLHKKETCEAVTIVETPPIVIVGLVAYVKT						
oatWHEPGSKLHKKETCEAVTIVETPPIVIVGLVAYVKT						
rice	GYKAGMTHIVREVEKPGSKLHKKETCEAVTI IETPPLVIVGLVAYVKT						

	* * *	**
maize	PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYENDA	141
sorghum	PRGLRTLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA	
wheat	PRGLRTLNSVWAQHLSDEVRRRFYKNWCKSKKKAFTKYALKYDSDA	
barley	PRGLRTLNSVWAQHLSDEVRRRFYKNWCKSKKKAFTKYALKYDSDA	
oat	PRGLRTLNTVWAQHLSDEVRRRFYKNWCKSKKKAFTKYALKYDSDA	
rice	PRGLRSLNSVWAQHLSEEVRRRFYKNWCKSKKKAFTKYALKYDSDA	

		*		** * *		*		*
maize	GKKEIQLQLEKMKKYASV	IRVIAHTQIRKMKGLKQKKAHLMEIQVNG	188					
sorghum	GKKEIQLQLEKMKKYASV	IRVIAHTQIKKMKGLKQKKAHLMEIQVNG						
wheat	GKKEIQLQLEKMKKYASV	VRVIAHTQIRKMKGLKQKKAHLMEIQVNG						
barley	GKKEIQMQLEKMKKYATV	VRVIAHTQIRKMKGLKQKKAHLMEIQING						
oat	GKKEIQLQLEKMKKYGTV	IRVIAHTQIRKMKGLKQKKAHLMEIQVNG						
rice	GKKEIQMQLEKMKKYASI	VRVIAHTQIRKMKGLKQKKAHLMEIOING						

maize GTIADKVDYGYKFFEKEVPVDAVFQKDEMIDIIGVTKGKGYEGVVTR 235
sorghum GTIADKVDYGYKFFEKEVPVDAVFQKDEMIDIIGVTKGKGYEGVVTR
wheat GTIADKVDYGYNFFEKEVPVDAVFQKDEMIDIIGVTKGKGYEGVVTR
barley GTIADKVDYGYNFFEKEVP IDAVFQKDEMIDIIGVTKGKGYEGVVTR
oat GTIADKVDYGYNFFEKEVP IDAVFQKDEMIDIIGVTKGKGYEGVVTR
rice GTIADKVDYGYKFFEKE IPVDAVFQKDEMIDIIGVTKGKGYEGVVTR

FIGURE 8B

maize	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	280
sorghum	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
wheat	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
barley	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
oat	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	
rice	WGVTRLPRKTHRGLRKVACIGAWHPARVSYTVARAGQNGYHHRTE	

	* * * * *	* *	
maize	MNKKVYKIGKAGQETHDASTEFDRTEKDITPMGGFPHYG IVKGDYL	326	
sorghum	MNKKVYKIGKAGQESHDASTEFDRTDKDITPMGGFPHYG IVKGDYL		
wheat	MNKKVYKIGKVQGETHDASTEFDRTEKDITPMGGFPHYGVVKGDYL		
barley	MNKKVYKIGKVQGETHDASTEFDRTEKDITPMGGFPHYGVVKADYL		
oat	MNKK IYKIGKVQGETHDASTEFDRTEKDITPMGGFPHYGVVKGDYL		
rice	MNKKVYKIGKSGOESHAACTEFDRTEKDITPMGGFPHYGVVKGDYL		

		* * * *
maize	MIKGCCVGPKKRVVTLRQSLLKQTSRLALEEIKLKF IDTSSKFGHGGRF	374
sorghum	MIKGCCVGPKKRVVTLRQSLLKQTSRLALEEIKLKF IDTSSKFGHGGRF	
wheat	MIKGCCVGPKKRVVTLRQSLLKQTSRLALEEIKLKFVDTSKFGHGGRF	
barley	MIKGCCVGPKKRVVTLRQSLLKQTSRLALEEIKLKLXDTSFKFGHGGPF	
oat	MIKGCCVGPKKRVVTLRQSLLKQTSRLALEEIKLKFVDTSKFGHGGRF	
rice	MIKGCCVGPKKRVVTLROSLLKQTSRLALEEIKLKF IDTSSKFGHGGRF	

	*	*	*	*	*****
maize	QTTDEKQRFFGKLKA	389			
sorghum	QTTDEKQKFY GKQKA				
wheat	QTTDEKQRFFGKLKA				
barley	QDTDEKQRFFGKLKAELLGI				
oat	QTTDEKQRFY GKLKA				
rice	OTTDEKQRFFGKLKA				

[illegible]

FIGURE 9

